

**Notice of Allowability**

Application No.

10/713,498

Examiner

Greg F. Cunningham

Applicant(s)

FRANK, MICHAEL

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment received 09/27/2007.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to amendment filed 09/27/2007.
2. The disposition of the claims is as follows: claims 1 – 11 are pending in the application. Claim 1 is the only independent claim. Claims 12 - 21 have been cancelled.

### ***Claim Rejections - 35 USC § 112***

3. In view of the amended claim 112 rejections are withdrawn.

### ***Allowable Subject Matter***

4. Claims 1 - 11 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Applicant's amended independent claim 1 stands novel over the related prior art. For instance, the related art of Cox (US 5,170,440), does make use of comprising the steps of storing a frame of an image scene, scanning a local neighborhood of said scene (say a line at a time) for observing pixels in said neighborhood, matching the observed pixels for a neighborhood with predicted pixel values for said neighborhood for developing a hypothesis matrix for a region based on pixels observed or predicted for that neighborhood, said predicted pixels being based on earlier observed and predicted values, assigning newly observed pixels in said hypothesis matrix to regions, generating data association hypotheses based on the hypothesis matrix, providing probability statistics to each hypothesis generated, summing the probability statistics of each hypothesis and discarding hypotheses with relatively low probability statistics and saving for utilization and for storage the hypotheses with relatively high probability statistics, reducing

the total number of hypotheses by partitioning the hypotheses tree into spatially disjoint trees, utilizing the saved hypotheses for generating predicted pixel values for the next neighborhood for use in the earlier-mentioned matching.

However, Cox does not disclose acquiring a frame of pixel data; for each pixel in the frame, calculating a predicted pixel value based on the pixel data of a neighborhood of pixels surrounding the pixel and using one or more pixel value prediction algorithms; for each pixel in the frame, calculating a predicted noise value using the predicted pixel value and the pixel data for the pixel; calculating a confidence estimate for each predicted pixel value based on the nature of the image at the neighborhood of pixels surrounding the pixel; calculating a fixed pattern noise estimate for each pixel using the predicted noise value and the confidence estimate, wherein the confidence estimate determines the amount of predicted noise value to be incorporated into the fixed pattern noise estimate for the pixel; temporally filtering the fixed pattern noise estimate; and subtracting the temporally filtered fixed pattern noise estimate for each pixel from the frame of pixel data to generate a final image' as claimed in independent claim 1.

Therefore as claimed by the combined elements of amended independent claim 1, the cited referenced prior art of record lacks the elements of amended said claim. Claims 2 – 11 depend from allowable independent claim 1 and therefore are also allowed.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Responses*

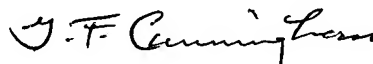
7. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 872-9306 may be used for formal communications.

*Inquiries*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

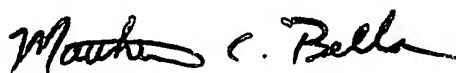
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Cunningham

Examiner, Art Unit 2624



**MATTHEW C. BELLA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

11/30/2007